

NGAC 3DEP Subcommittee Update



National Geospatial Advisory Committee Meeting
December 7, 2022

3DEP Subcommittee 2022 Membership

Name	Organization
Gary Thompson (Chair) *	North Carolina Geodetic Survey, State of North Carolina
Gale Blackmer, Ph.D. (Vice Chair)	Pennsylvania Geological Survey
Garet Couch *	National Tribal Geographic Information Support Center
Lynn Dupont *	New Orleans Regional Planning Commission
William Haneberg, Ph.D. *	Kentucky Geological Survey
Karen Gaffney	North Coast Resource Partnership
David Maidment, Ph.D.	University of Texas
Mark Reichardt	Open Geospatial Consortium (Retired)
Jim Van Rens	Riegl, USA Inc.
Steven Steinberg, Ph.D.	County of Los Angeles, CA
A. Stewart Walker, Ph.D.	Lidar Magazine
Federal Contacts: Mike Tischler, Vicki Lukas (<i>USGS/National Geospatial Program</i>)	

***NGAC Member**

NGAC 3DEP Subcommittee

- Established through National Landslides Preparedness Act (NLPA) - P.L. 116-323
- FGDC coordinated with USGS/DOI to establish the subcommittee and appoint members
- Membership includes NGAC and non-NGAC members selected for subject matter expertise
- Subcommittee has held initial meeting and established work groups

3DEP Subcommittee – Objectives

- **Objective 1:** Meet the statutory assessment and reporting requirements for the subcommittee as outlined in the NLPA.
- **Objective 2:** Provide ongoing advice and recommendations to the 3DEP program.
- **Objective 3:** Serve a liaison role between the organizations/ sectors represented on the subcommittee and the 3DEP program.

3DEP Subcommittee – Work Groups

Trends & Developments Work Group	Program Management Work Group
(A) ASSESSMENT. The Subcommittee shall conduct an assessment of—	
(i) trends and developments in— (I) the collection, dissemination, and use of 3D elevation data; and (II) science and technology relating to 3D elevation data;	(ii) the effectiveness of the 3D Elevation Program in carrying out the activities described in subsection (a)(1); (iii) the need to revise or reorganize the 3D Elevation Program; and (iv) the management, coordination, implementation, and activities of the 3D Elevation Program.
Gale Blackmer (Team Lead) Bill Haneberg David Maidment Mark Reichardt Jim Van Rens Stewart Walker	Gary Thompson (Team Lead) Garet Couch Lynn Dupont Karen Gaffney Steve Steinberg

3DEP Subcommittee – Trends & Developments Draft Outline

Introduction

- Refer to the program mission
- Capture the history: where discipline was at 3DEP initiation and its influence on the industry
- Capture how uses for 3DEP data in particular and elevation data in general have grown since program inception; new uses will continue to appear

Trends and Developments in Data Use

- Talk about applications of 3DEP-style data beyond the traditional elevation surface; use them to highlight reasons for doing the work
- Some examples: digital twins, change detection, elevation-derived hydrography, inland bathymetry

3DEP Subcommittee – Trends & Developments Draft Outline

Trends and Developments in Data Acquisition and Processing

- Sensor performance is improving, and new platforms are available
- Data Formats
- Standards
- Rapid response collections
- Deep Learning

Trends and Developments in Data Dissemination

- Much useful information in the 3D Nation report
- Range of deliverables, new products to consider
- Ecosystem concept; data management and delivery systems
- Related or “3DEP adjacent” data – e.g., imagery, hydrography, local high-density collections. Users often want to access these in conjunction with 3DEP base data.

3DEP Subcommittee – Program Management Draft Outline

Effectiveness of the 3D Elevation Program

- Milestones and program accomplishments
- Public/Private partnerships
- Economic benefits of the program
- Contributions to the National Spatial Data Infrastructure (NSDI)
- Development and adherence to standards
- NGAC reports and transition documents

3D Elevation Program

- Organization of the program
- Working with other federal agencies to develop a coordinated data collection program
- Promotion of the program
- Ongoing activities of the program

3DEP Subcommittee – Milestones

Name	Date
Subcommittee established (appointment letters signed)	July 5, 2022
Subcommittee (kick-off meeting)	August 19, 2022
Subcommittee meeting (3DEP Next Gen briefing)	September 9, 2022
September 2022 NGAC meeting and subcommittee status report	September 7-8, 2022
Subcommittee Work Group Meetings: Program Management WG and Trends & Developments WG	September 30, 2022
FACA legal/ethics briefing	October 5, 2022
Subcommittee Work Group Meeting: Program Management WG	October 19, 2022
Subcommittee Work Group Meeting: Trends & Developments WG	October 27, 2022
Subcommittee Work Group Meeting: Program Management WG	November 3, 2022
Subcommittee Work Group Meeting: Trends & Developments WG	November 17, 2022
December 2022 NGAC meeting and subcommittee status report	December 6-7, 2022
Subcommittee Work Group Meeting: Program Management WG	December 12, 2022
Subcommittee meeting	January. 2022 (TBD)
Spring 2023 NGAC meeting and subcommittee status report	Spring 2023 (TBD)
First Subcommittee report due	July 2023

3DEP Subcommittee – Next Steps & Deliverables

Next Steps

- **Phase 1:** Continue working in Work Groups to develop key components of the NLPA-required GDA Subcommittee report
- **Phase 2:** Develop first annual report including findings and recommendations
- **Phase 3:** Develop longer-term program of work for the subcommittee

Deliverables

- **Deliverable 1:** Initial subcommittee report (July 2023)
- **Deliverable 2:** Subsequent biennial subcommittee reports

3DEP Program Update

Mike Tischler

Director,
USGS National Geospatial Program